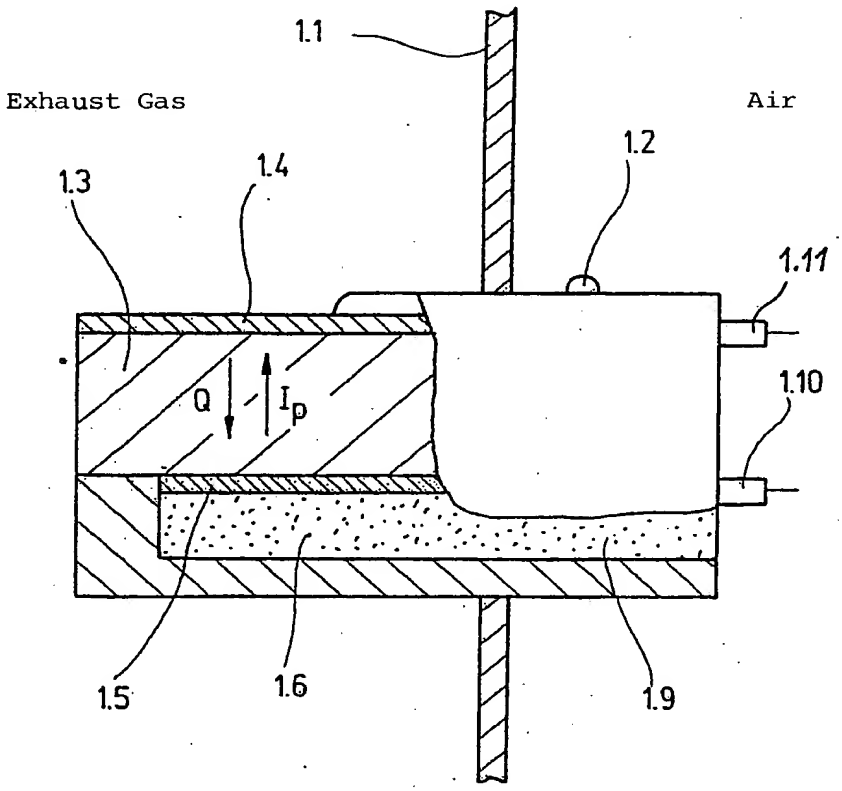

Fig.1

(State of the Art)

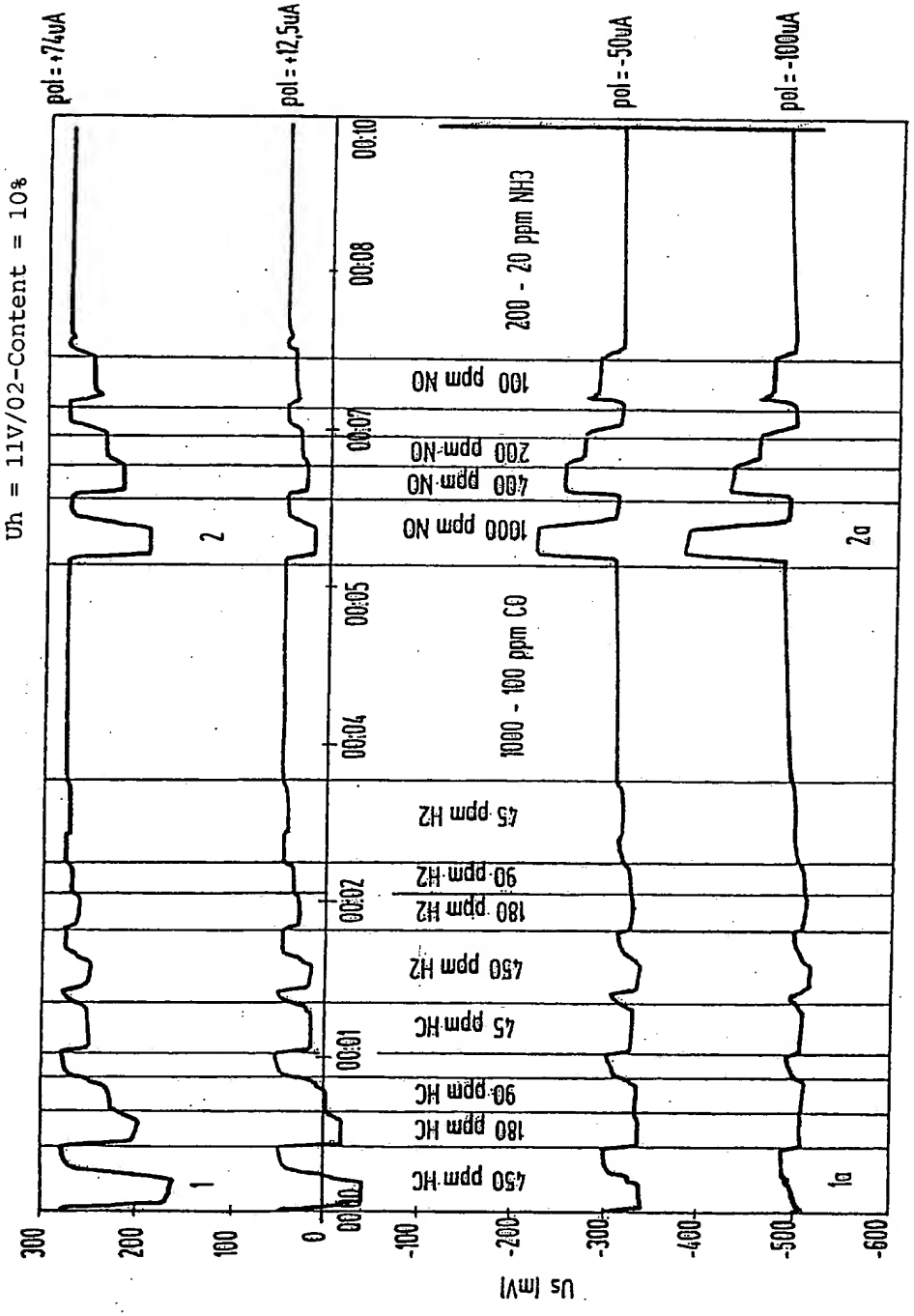
Uh = 11V/02-Content = 10%
pol = +74uA
pol = +12,5uA
pol = -50uA
pol = -100uA
Us [mV]
Time [h:min:sec]
450 ppm HC
180 ppm HC
90 ppm HC
45 ppm HC
450 ppm H2
180 ppm H2
90 ppm H2
45 ppm H2
1000 - 100 ppm CO
1000 ppm NO
400 ppm NO
200 ppm NO
100 ppm NO
200 - 20 ppm NH3
1
2
1a
2a
00:00
00:04
00:05
00:07
00:08
00:10

Fig.2

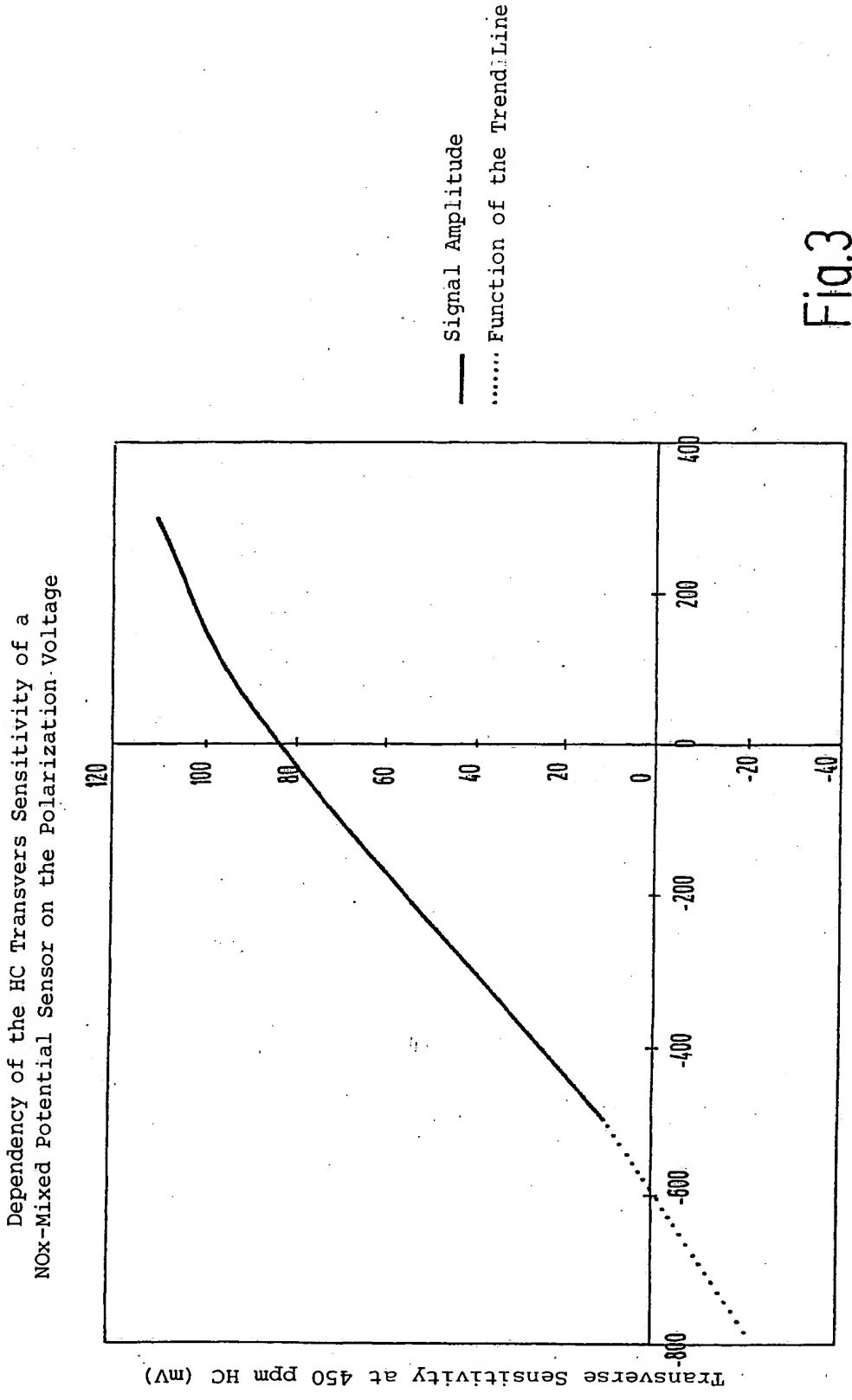
Dependency of the HC Transvers Sensitivity of a
NOx-Mixed Potential Sensor on the Polarization-Voltage
Signal Amplitude
Function of the Trend-Line
Transverse Sensitivity at 450 ppm HC (mV)
120
100
80
60
40
20
0
-20
-40
400
200
0
-200
-400
-600
-800
U - pol (mV)

Fig.3

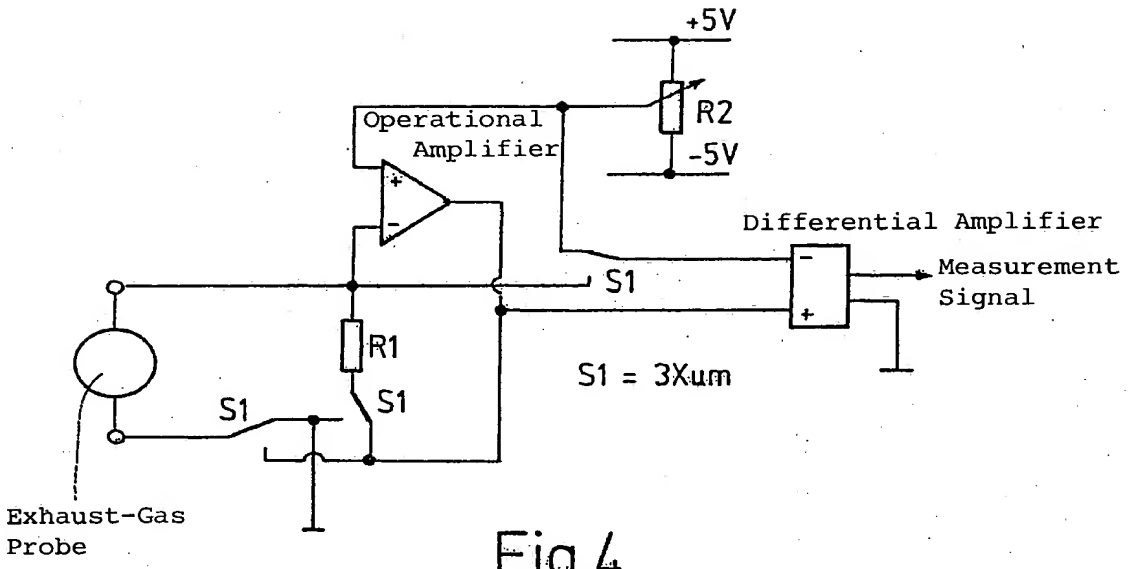
+5V
R2
-5V
Operational
Amplifier
Differential Amplifier
Measurement
Signal
S1
R1
S1
S1
S1 = 3Xum
Exhaust-Gas
Probe

Fig.4

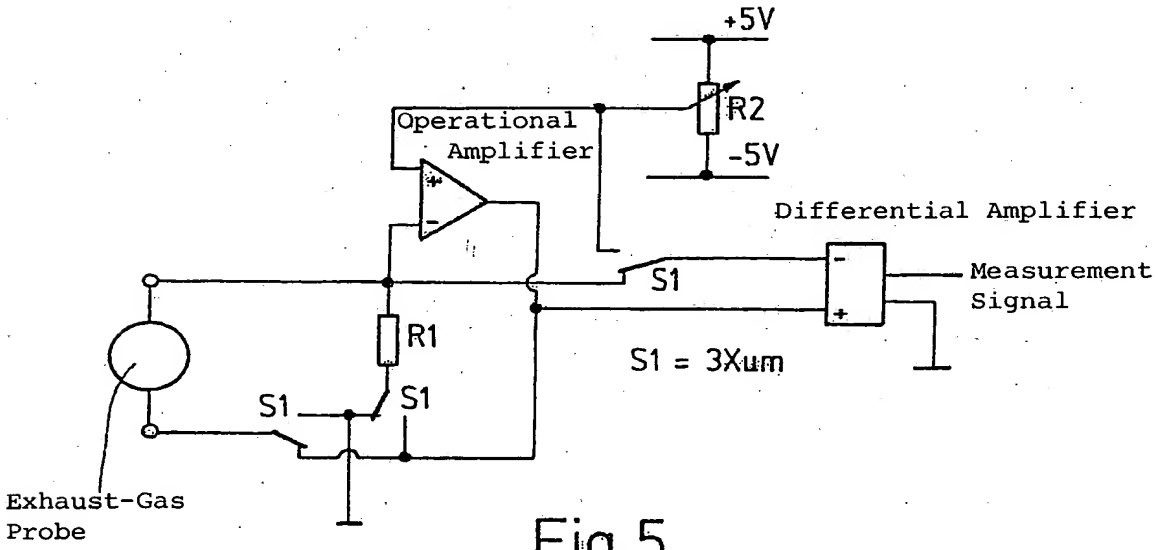
+5V
R2
-5V
Operational
Amplifier
Differential Amplifier
Measurement
Signal
S1
R1
S1
S1
S1 = 3Xum
Exhaust-Gas
Probe

Fig.5